NC STATE

Mechanical & Aerospace Engineering

2018 Inductees

Dr. Jack Edwards, Jr.

BSAE '88, MSAE '90, PhDAE '93

A native of Eden, NC, Dr. Jack Edwards received his B.S. (1988), M.S. (1990), and Ph.D. (1993) in Aerospace Engineering from North Carolina State University. After a post-doctoral appointment at NC A&T State University and a contracting job at NASA Langley, he returned to NCSU in 1994, rising to the rank of Professor in 2006. Techniques developed by Dr. Edwards are widely used in the analysis of high-speed flight concepts, including next-generation scramjet and ramjet engines. Dr. Edwards' work has been supported by DARPA, the Army Research Office, the Air Force Office of Scientific Research, the National Science Foundation, the Defense Threat Reduction Agency, various Air Force Research Laboratories, NASA, and the U.S. EPA, among others. He is an Associate Fellow of the American Institute of Aeronautics and Astronautics and currently holds the Angel Family Distinguished Professorship in Mechanical and Aerospace Engineering. Since 2016, Dr. Edwards has also served as Associate Department Head and Director of Undergraduate Programs in the MAE Department.

Mr. Shepard Hockaday, P.E.

BSME '84,

After graduating from NCSU, Mr. Hockaday worked at United Technologies' Pratt & Whitney as an analytical engineer. He completed his MSME from the University of Florida. After, he worked for Energy Conversion Systems (formally Morganite, Inc.) as Vice-President of Engineering/New Product Development. During this time, he graduated from the Young Executives Institute, Kenan Flagler Business School at the University of North Carolina at Chapel Hill. At Dewberry Engineers Inc. he currently serves as Senior VP. Since joining Dewberry he has grown Dewberry's MEPS consulting engineering, ranking within the top 30 largest MEP engineering firms in the United States. Hockaday holds six patents, is a Professional Engineer, and licensed general contractor. He married his high school sweetheart (wife of 35 years now) and is the father of six children, two of whom he convinced to make a career out of mechanical engineering which he considers to be the greatest occupation in the world.

Dr. Shaik Jeelani

PhDME '75

After completing his doctoral studies at NCSU, Dr. Jeelani joined Tuskegee University in 1974 as Assistant Professor of Mechanical Engineering. Since 1996, he has been serving as the Vice President for Research and Sponsored Programs at Tuskegee University. While leading the College of Engineering, Dr. Jeelani revised the curriculum and developed facilities for support of research and education. Dr. Jeelani has raised funds and established two endowed chairs and the Department of Materials Science and Engineering that offers MS and Ph.D. programs at Tuskegee. He has received numerous regional and national awards for excellence in teaching, research and education. In 2012, he was invited to the White house to receive from President Barak Obama, the Presidential Award for Mentoring, including being the producer of the largest number of Black PhDs in Materials Science and Engineering.

Dr. Dean Kontinos

MSAE '91, PhDAE '94

Dr. Dean Kontinos has been with NASA since the time of his graduate studies at NCSU and is currently Chief Engineer of the NASA Ames Research Center in Mountain View, CA. Previously he was Chief of the Entry Systems and Technology Division, acting as focal point for Ames' Entry Systems competency. Other experiences include NASA Engineering and Safety Center (NESC) Chief Engineer at Ames, Technical Integration Manager for the Fundamental Aeronautics Program on detail to NASA Headquarters, and Chief of the Aerothermodynamics Branch. Dr. Kontinos received a B.S. in Aerospace Engineering from the University of Florida, and M.S. and Ph.D. degrees in Aerospace Engineering from North Carolina State University. He is an Associate Fellow of the American Institute of Aeronautics and Astronautics and a recipient of the NASA Exceptional Service Medal.

Mr. Clyde Neely, P.E. ***Posthumously***

BSME '51

Following his graduationfrom NC State University, Mr. Neely joined Union Carbide where he spent his entire professional career, prior to joining Becht Engineering. Over the next 50 years, Mr. Neely served in a variety of engineering capacities with a focus on pressure vessel engineering. Mr. Neely was promoted to Corporate Engineering Fellow in 1976, and had responsibilities for influencing and providing the design methodologies, standards, and practices that were used Corporate-wide for new construction, repair/alteration, and troubleshooting activities. Mr. Neely served on several ASME subcommittees (was chair of two of them) and for many years was a member of the "Main Committee" and also the Board of Pressure Technology Codes and Standards. Mr. Neely was awarded the J. Hall Taylor Medal for Eminent Achievement in the Field of Pressure Vessels and Piping (1993), four ASME Certifications of Acclamation, one ASME Certificate of Appreciation, and achieved the honor of ASME Life Fellow.

Dr. John Olds

BSAE '87, PhDAE '93

Following graduation from NC State, Dr. John Olds attended graduate school at Stanford University and began his aerospace career at General Dynamics in Huntsville, Alabama. He later returned to NC State and completed a PhD in Aerospace Engineering in 1993. Dr. Olds was previously on the NCSU MAE faculty and was active in the department's Mars Mission Research Center. In 1995, Dr. Olds became a faculty member at the Georgia Institute of Technology. Dr. Olds has authored and co-authored over 100 technical papers in his career on topics related to advanced space transportation, human space exploration, space-based solar power, hypersonic flight, and small satellites. He left Georgia Tech in 2005 to pursue a passion for space entrepreneurship and NewSpace. Dr. Olds is currently the Chairman and CEO of Atlanta-based SpaceWorks Enterprises, Inc., a company he co-founded. Dr. Olds is a native of Spartanburg SC and a registered professional engineer in Georgia. He is an Associate Fellow of the AIAA.

Dr. Paul Orkwis

MSAE '87, PhDAE '90

Paul D. Orkwis, Ph.D. is Interim Dean of the College of Engineering and Applied Science at the University of Cincinnati (UC), and Professor of Aerospace Engineering and Engineering Mechanics. Previously, he was the Bradley Jones Professor and Head of the Department of Aerospace Engineering and Engineering Mechanics, and founding American co-Dean of the UC-Chongqing University Joint Engineering Coop Institute - the first cooperative education program in China. Paul is founder and co-Director of the UC Gas Turbine Simulation Laboratory. Prof. Orkwis received his M.S. and Ph.D. in Aerospace Engineering in 1987 and 1990, respectively, from State; where he wrote the first Newton's method-based Navier-Stokes equation solver to demonstrate quadratic convergence. Upon earning the doctorate Paul joined the faculty at UC. He has extensive experience working with the gas turbine industry and government labs especially GE Aviation University, NASA Glenn and the U.S. Air Force Research Laboratory.

Mr. Christopher Rolfe

BSME '72

Upon graduation from NC State in 1972 with a BSME, Chris began his career at Duke as an Junior Engineer and worked on Duke's coal, nuclear, and hydro power plants. Chris also had responsibility for Duke's Research and Development function as well as Duke's Quality initiatives. Chris Rolfe retired from Duke Energy in 2009 after a 37 year career. Chris served on numerous industry and civic boards and commissions at the local, state and national levels. In addition Chris served as chair of EEI's Research Management Committee, The Utility Renewable Resource Association, The US Chamber Center for Workforce Development, and The North Carolina Commission on Workforce Development. Chris was awarded the Old North State award by Governor Perdue and The Cornerstone award by Goodwill Industries. Chris was a registered professional engineer in North and South Carolina and was a member of ASME.

Dr. Bill Sharpe, Jr.

BSME '60, MSME '61

William (Bill) Sharpe is the Alonzo G. Decker Professor Emeritus at Johns Hopkins University where he received his doctorate in 1966. He was a professor at Michigan State, then a department chairman at Louisiana State, before returning to Hopkins in 1983 as the Founding Chairman of the Department of Mechanical Engineering. His centered on measuring the mechanical properties of materials using a laser-based technique developed as a graduate student. He was president of the Society for Experimental Mechanics in 1984/5, received the Murray Medal for 'development and applications of experimental mechanics', and is an Honorary Member for 'years of devoted service'. He was active in ASME and received the Roe Award for 'notable contributions to the engineering profession'. He returned home to Chatham County in 2010 where he lives in Galloway Ridge near Pittsboro on property purchased by ancestors in 1786.

Dr. Tony Sigmon

BSESM '74, MSESM '75, PhDESM '77

Dr. Sigmon received his B.S., M.S. and PhD degrees in Engineering Science and Mechanics (ESM) at N.C. State with a focus on heat transfer and fluid mechanics. The ESM department disbanded prior to his PhD program and he, with his advisors, were relocated to Mechanical and Aerospace Engineering (MAE). After receiving his doctorate, he worked for 12 years at what is now RTI International, where he managed a group responsible for conducting energy related research for government and private clients. During that time, he held adjunct appointments in engineering at both N.C. State and Duke University. An entrepreneurial spirit led him to an MBA degree from Duke University. In 1994 he founded Collegiate Capital Management(CCM). The firm's focus is to provide asset management services to university faculty and staff. Dr. Sigmon and his extended family are devoted Wolfpackers, and are long-time supporters of both N.C. State academics and sports programs.

Dr. Allie Smith

BSME '56, MSME '61, PhDME '66

Dr. Allie Maitland Smith is well known for the discovery of the anomalous refraction maxima phenomenon. However, he takes great pride in being the General Chairman of the 17th annual American Institute of Aeronautics and Astronautics (AIAA) meeting in 1979. Shortly thereafter, Dr. Smith was appointed Dean of the School of Engineering at The University of Mississippi and has been recognized as Emeritus Dean and Professor with the university since retiring in 2008. Dr. Smith is a Fellow of AIAA and ASME, and received the AIAA Thermophysics and Hermann Oberth Awards for his research and publications. He was Chairman of AIAA Thermophysics Technical and Terrestrial Energy Systems Technical Committees as well as Associate Editor of AIAA Journal and Associate Editor of Journal of Thermophysics and Heat Transfer. He was General Chairman of 11th AIAA Thermophysics Conference. He was a member of the ASME Aerospace Heat Transfer Committee for 30 years. In 1991 Dr. Smith was General Chairman of the Engineering Deans Institute.

Dr. W. Glenn Steele

MSME '70, PhDME '74

Dr. Steele is a Giles Distinguished Professor Emeritus of Mechanical Engineering at Mississippi State University. Following graduate school, he worked at the Westinghouse/Bettis Atomic Power Laboratory where he did research and development work on nuclear power plant components for the U.S. Navy. After joining the MSU faculty in 1979, Dr. Steele focused on education, research, and service in the energy area with special emphasis on the applications of uncertainty analysis. He served as head of the MSU ME Department and also in other administrative roles including Interim Dean of Engineering, Interim Vice President for Research and Economic Development, Interim Provost and Academic Vice President, and as director of two university research centers. Uncertainty analysis was the primary focus of Dr. Steele's involvement with national and international committees on the development of new standards for experimental error analysis. He also has co-authored a book on the subject which is in its fourth edition.

Mr. P. Donald Yelton

BSAE '66

Mr. P. Donald Yelton began his engineering career following graduation from NC State with the Lockheed Corporation in Marietta, Georgia. His career has covered 52 years although not all in aeronautics. Most notable in his journey was the creation of a highly specialized engineering company that began in 1981 with three partners, fifteen years after his graduation. Yelton is currently Vice-President, CFO, Principal Managing Partner, and Senior Software Engineer. The company is named Emprise Corporation, a name that means "an adventurous enterprise". Emprise is an engineering consulting firm serving the automotive, aerospace, industrial and alternate power industries. The corporation has earned an international reputation for developing and designing integrated test facilities, technical centers, and custom test equipment and systems for a wide range of industrial needs.

2017 Inductees

W.F. (Buzz) Wilson Jr.

BSAE '66

Mr. Wilson was a flight test engineer responsible for airspeed and refused takeoff certification testing on Boeing 737-100 and 737-200 aircrafts, as well as longitudinal stability certification testing on Boeing 747. Wilson was project manager for over 200 design and implementation projects for manufacturing, distribution, and repair facilities. These ranged from commercial and military aviation electronics manufacturing to repair and maintenance facilities of aircraft and ships. He has been an instructor at community college, and is a board member for a specialty chemical manufacturer.

Douglas L. Wolford

BSME '83

Mr. Wolford is Principal of Niagara Bison, LLC – a private equity and venture capital firm. In addition, Doug is Managing Partner of JCRC, LLC, a cannabis-industry venture capital firm. Previously, he was Chief Executive Officer of Convergent Wealth Advisors, an $11B national multi-family office and wealth advisor. He is active in numerous charitable endeavors and is a frequently sought commentator on high-net-worth topics by television, radio, and print media. His many interests include conservation and the outdoors, fine wine, collecting art and antiques, and anything mechanical.

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